



**(43) International Publication Date**  
**13 January 2005 (13.01.2005)**

## PCT

**(10) International Publication Number**  
**WO 2005/003046 A1**

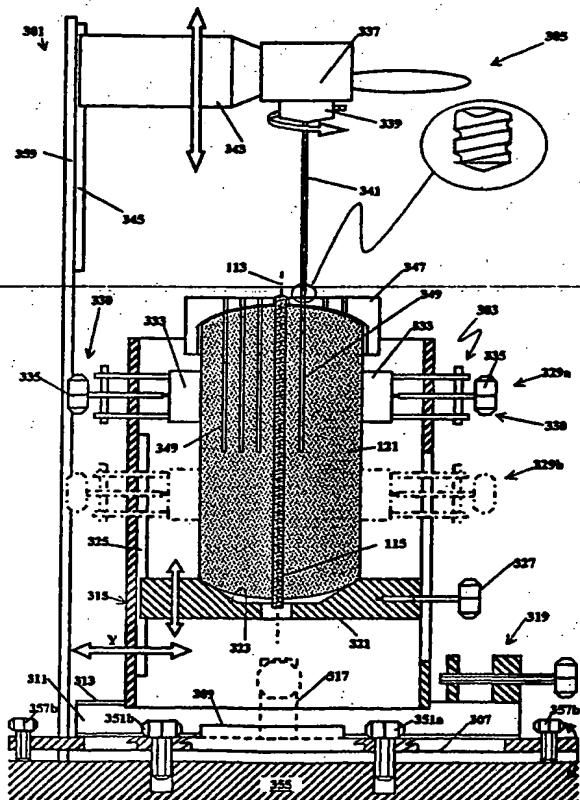
- (51) International Patent Classification<sup>7</sup>: C03B 37/012
- (21) International Application Number: PCT/EP2003/007157
- (22) International Filing Date: 30 June 2003 (30.06.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (71) Applicant (for all designated States except US): PIRELLI & C. S.P.A. [IT/IT]; Via Gaetano Negri, 10, I-20123 Milano (IT).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): DAI, Guojun [CN/IT]; c/o Pirelli S.P.A., Viale Sarca, 222, I-20126 Milano (IT). SOLINAS, Stefano [IT/IT]; c/o Pirelli S.p.A., Viale Sarca, 222, I-20126 Milano (IT). VERONELLI, Franco [IT/IT]; c/o Pirelli S.p.A., Viale Sarca, 222, I-20126 Milano (IT). ARIMONDI, Marco [IT/IT]; c/o Pirelli S.p.A., Viale Sarca, 222, I-20126 Milano (IT).
- (74) Agents: MACCALLI, Marco et al.; Pezzoli S.r.l., Via Settembrini, 40, I-20124 Milano (IT).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Declaration under Rule 4.17:**  
— of inventorship (Rule 4.17(iv)) for US only

**Declaration under Rule 4.17:**

— of inventorship (Rule 4.17(iv)) for US only

*[Continued on next page]*

- (54) Title: METHOD AND APPARATUS FOR DRILLING PREFORMS FOR HOLEY OPTICAL FIBERS**



**(57) Abstract:** A method of producing a preform for a holey optical fiber having at least one hole longitudinally extending therethrough, comprises forming a porous preform (121), such as a glass soot preform formed by means of flame hydrolysis, or a gel preform; at least one hole is then formed by drilling (305) the porous preform, the hole extending through the porous preform along the longitudinal direction thereof. A holey fiber can be produced by drawing the holey porous preform, after having submitted it to a consolidation process. A device for drilling the porous preform comprising mean for supporting, holding, positioning and drilling the porous preform is also claimed.

**BEST AVAILABLE COPY**

**WO 2005/003046 A1**



**Published:**

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

---

**BEST AVAILABLE COPY**